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#17 Appeal
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Date: 3-17-03


Himanshu S. Amin

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Applicant(s): Joerg Schlieffers, *et al.*

Examiner: Diane I. Lee

Serial No: 09/835,733

Art Unit: 2876

Filing Date: April 16, 2001

Title: DATA ACQUISITION APPARATUS

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APPEAL BRIEF

Dear Sir:

Applicant submits this brief in connection with an appeal of the above identified application. Enclosed is a check for \$320.00 for the fee associated with this brief.

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I. Real Party in Interest (37 C.F.R. § 1.192(c)(1))

The real party in interest in the present appeal is Telxon Corporation, the assignee of the present application.

II. Related Appeals and Interferences (37 C.F.R. § 1.192(c)(2))

Appellant, appellant's legal representatives, and/or the assignee of the present application are unaware of any appeals or interferences which will directly affect, or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims (37 C.F.R. § 1.192(c)(3))

Claims 14-34 are pending in the application. The rejection of claims 14-34 is appealed.

IV. Status of Amendments (37 C.F.R. § 1.192(c)(4))

Claims 14, 20 and 21 were amended in a Reply to Final Office Action dated December 14, 2001, whereas claim 14 was amended in a Reply to Office Action dated April 18, 2002.

V. Summary of Invention (37 C.F.R. § 1.192(c)(5))

The present invention provides a hand-held optical scanning device that facilitates efficient operations when performing activities such as scanning and receiving bar code information. This includes providing display configuration options that enable left-handed and right-handed users to effectively operate the device in accordance with selected options. To further enhance operations, the present invention also provides a contoured handle that is positioned to comfortably adapt to the user's hand and to increase device utility when operating the device. The handle, display, and various options facilitate an increased viewing angle for device users while mitigating annoyances such as moving one's hand in order to interact with the device and/or to efficiently receive information from the device.

In one aspect of the present invention, microprocessor controlled options enable selection of either left-handed or right handed operations such as enabling horizontal or landscape displays and input options to be suitably rotated for viewing depending on which hand a user operates the scanning device (p5, ll. 7-12, Fig. 5b). For example, Fig. 5b illustrates a horizontal display configuration with a keypad providing selection options. Thus, a right-handed user would select the

display/input option depicted in Fig. 5b, whereas a left-handed user would select options to rotate the display in Fig. 5b (*e.g.*, 180 degrees) to suitably view the display and operate the device while viewing from the left hand (p5, ll. 7-12, Fig. 5b).

While adapting the scanning device to the user's hand, the present invention also facilitates providing an increased viewing angle during operation of the device. Thus, a scanning device is provided having a body portion with a first distal end and having an optical scanning module oriented to scan objects in a direction that is outward from the distal end (p4, ll. 14-21, p5, ll. 1-6, Fig. 1). The handle extends from a bottom surface of the body portion and is joined to the body portion at a location near the first distal end and at a selected angle that causes a proximal end of the bottom surface of the body portion to rest on a radial surface of a user's hand when grasping the handle. Preferably, the scanning device and handle are contoured to comfortably conform to a user's hand, such as, for example, by provision of a bulbous handle.

VI. Statement of the Issues (37 C.F.R. § 1.192(c)(6))

A. Whether claim 14 contains subject matter not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention under 35 U.S.C. §112, first paragraph.

B. Whether claim 14 is indefinite for failing to particularly point out and distinctly claim the invention under 35 U.S.C. §112, second paragraph.

C. Whether claims 14-17, 20-24, 28-29, and 32-34 are unpatentable under 35 U.S.C. §103(a) as being obvious over Petteruti, *et al.* (US 5,335,170) in view of Tracy, *et al.* (US 5,979,757).

D. Whether claims 18-19, 25-27, 30-31 are unpatentable under 35 U.S.C. §103(a) as being obvious over Petteruti, *et al.* (US 5,335,170) as modified by Tracy, *et al.* (US 5,979,757) and in further view of Reynolds, *et al.* (US 5,828,052).

VII. Grouping of Claims (37 C.F.R. § 1.192(c)(7))

For the purposes of this appeal only, the claims are grouped as follows:

Claims 14-20 stand or fall together; and claims 21-34 stand or fall together.

VIII. Argument (37 C.F.R. § 1.192(c)(8))**A. Rejection of Claim 14 Under 35 U.S.C. §112, First Paragraph**

Claim 14 stands rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. In particular, the Examiner has not presented evidence or reasons why a person skilled in the art would not recognize a description of the claimed invention in the specification.

The examiner has the initial burden of presenting evidence or reasons why persons skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims. 541 F.2d at 265, 191 USPQ at 98. See also *Ex parte Sorenson*, 3 USPQ2d 1462, 1463 (Bd. Pat. App. & Inter. 1987).

Moreover, the contended matter relating to a computer or microprocessor controlling display options is conventional and well known in the art, and therefore need not be disclosed in detail.

What is conventional or well known to one of ordinary skill in the art need not be disclosed in detail. See *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d at 1384, 231 USPQ at 94.

Claim 14 recites a *microcomputer* that provides a *display option* in accordance with the horizontal configuration to orient display information on the display based at least in part upon whether a user selects a left hand or right hand display option. The Examiner contends that such microcomputer controlled display is not supported in the specification. However, applicants' representatives submit that the claimed subject matter is supported as discussed in detail below.

In particular, the scanning device *display* in the claimed invention is orientation selectable to render a vertical and a horizontal display wherein the horizontal *display is configurable for left-hand and right-hand users*. (See page 5, first paragraph). It is well known in the art that a display itself is a "controlled" component. That is, a display is typically an output device that displays signals that are transmitted in an appropriate format and responds to various formatting commands issued from a microprocessor. Some displays can further act as an input device (*e.g.*, touch sensitive

screen) wherein a touch-sensitive transparent panel is employed to cover the screen in order to sense an event (*e.g.*, electrical in nature such resistive and capacitive) and transmitted a signal. Without a device such as a microprocessor to transmit or receive a display signal and/or commands, the display itself does not provide much usefulness.

A microcomputer (as well as a personal computer, minicomputer, ASIC and the like) can provide such display signal transmitting, formatting, and receiving ability. The microcomputer can be considered the “brain” or control mechanism of a device. For example, microwaves, automobile digital read-outs, bar code scanners and digital watches employ a microcomputer(s) for user interaction such as customizing the display including display orientations. The claimed invention provides such *microcomputer*. (*See* page 4, second paragraph).

Since *computer and display technology were well known in the art at the time of the invention*, it would be apparent to one of ordinary skill in the art that the operation and configuration of a display (*e.g.*, display orientation) can be provided by a microcomputer as claimed in the subject invention. Accordingly, it is respectfully submitted that this rejection be reversed.

B. Rejection of Claim 14 Under 35 U.S.C. §112, First Paragraph

Claim 14 stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the invention. Applicants’ representatives submit that the invention as recited in claim 14 is not indefinite since the claim is clear on its face and moreover since the Examiner’s interpretation of the claimed subject matter was a correct interpretation based upon the Examiner’s written remarks. It is noted that in the Reply to Final Office Action dated December 14, 2001, the applicant’s representatives were not asserting that the Examiner’s position regarding this objection was correct, but were asserting that the Examiner’s interpretation of claim 14 was correct, and thus there could be no issue of indefiniteness. The following quotation is provided from the Examiner’s remarks in Paper No. 13, page 3, dated September 19, 2001:

“As best understood by the Examiner, the above limitations have been translated as –upon whether a user selects a left hand or a right hand display option, the orientation of the display information is provided in accordance with the selection of the configuration.”

The Examiner's interpretation is clearly reflected in the language of claim 14 which recites in part "...a microcomputer that provides a display option in accordance with the horizontal configuration to orient display information on the display based at least in part upon whether a user selects a left hand or right hand display option." Since both the Examiner's interpretation of claim 14 and the language recited therein is directed to orienting display information based upon a selection option for left-handed or right-handed users, and since claim 14 clearly recites this distinction under 35 U.S.C. §112, second paragraph, it is submitted that this rejection be reversed.

C. **Rejection of Claims 14-17, 20-24, 28-29, and 32-34 Under 35 U.S.C. §103(a)**

Claims 14-17, 20-24, 28-29, and 32-34 stand rejected under 35 U.S.C. §103(a) as being unpatentable by Petteruti, *et al.* (US 5,335,170) in view of Tracy, *et al.* (US 5,979,757).

i. **Petteruti, *et al.* and Tracy, *et al.*, individually and in combination, do not teach or suggest all claim limitations as recited in claim 14 and claims 15-20 which depend respectively therefrom.**

To establish a *prima facie* case of obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). See MPEP § 2143.03.

In particular, claim 14 recites a microcomputer that provides a user selectable horizontal display orientation option to display information in ***a left hand or a right hand display orientation*** wherein the user determines the orientation by selecting either a left hand or a right hand orientation option. Petteruti, *et al.* and Tracy, *et al.* alone or in combination fail to teach such subject matter as claimed. In fact, as noted by the Examiner, Petteruti, *et al.* and Tracy, *et al.* are ***silent*** regarding operation by right handed and left handed people and do not teach or suggest a device that accommodates a right handed and a left handed person as recited in claim 14. At most, Tracy, *et al.* discloses selecting a horizontal configuration and a vertical configuration. However, in sharp contrast to claim 14, Tracy, *et al.* does not disclose if and/or how a left or right handed user would orient the horizontal display thus, it can only be presumed that there is one horizontal orientation suiting only one type of user. Accordingly, neither Petteruti, *et al.* nor Tracy, *et al.*, individually or in combination, teach or suggest the claimed invention as recited in claim 14.

Assuming *arguendo* that Petteruti, *et al.* and Tracy, *et al.* could be combined, neither Petteruti, *et al.* nor Tracy, *et al.* provide a suggestion or motivation to combine in a manner that would result in the claimed invention. The Federal Circuit has consistently held that in order to establish obviousness vis-a-vis a combination of cited references, the cited references must themselves provide a suggestion for the combination to one of ordinary skill in the art. The suggestion for such a combination cannot and must not be based on applicant's disclosure using hindsight. See *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Assuming that Petteruti, *et al.* and Tracy, *et al.* were combinable, a suggestion or motivation to combine Petteruti, *et al.* and Tracy, *et al.* to result in the claimed invention is **absent**. Particularly, Tracy, *et al.* teaches a portable shopping system that includes a portable display wherein a portable scanner is attached and can be detached such that the detached, display-less, and portable scanner can be employed by the user. (Col. 4, lines 42-46). Clearly, if it were obvious to combine and integrate the display orientations of Tracy, *et al.* and the portable scanner of Petteruti, *et al.*, then Tracy, *et al.* **would have combined** their display orientations with their portable scanner. Furthermore, even if Tracy, *et al.* would have combined such subject matter, still absent would be a left hand and a right hand orientation as in the claimed invention.

In view of the above, it is readily apparent that there is no suggestion or motivation to combine Petteruti, *et al.* and Tracy, *et al.*, and that combining them would not result in the claimed invention. Accordingly, reversal of the rejection of claim 14 and the claims that depend therefrom (dependent claims 15-20) is respectfully requested.

- ii. **Petteruti, *et al.* and Tracy, *et al.*, individually and in combination, do not teach or suggest all claim limitations as recited in claim 21 and claims 22-34 which depend respectively therefrom.**

Claim 21 recites a **handle** that extends from a bottom surface of the body at a first **distal end** to increase a viewing angle of the **display**, the handle being joined to the body to cause a proximal end of a bottom surface of the body to rest on a radial surface of a user's hand. In contrast, Petteruti, *et al.* teaches a gun shaped scanner module having a handle portion wherein the handle portion is located at the proximal end (not the distal end, as claimed) of the scanner module as illustrated in

Fig. 1 and shown below. From the figure, it can be seen that the handle mates with the lower portion at the proximal end.

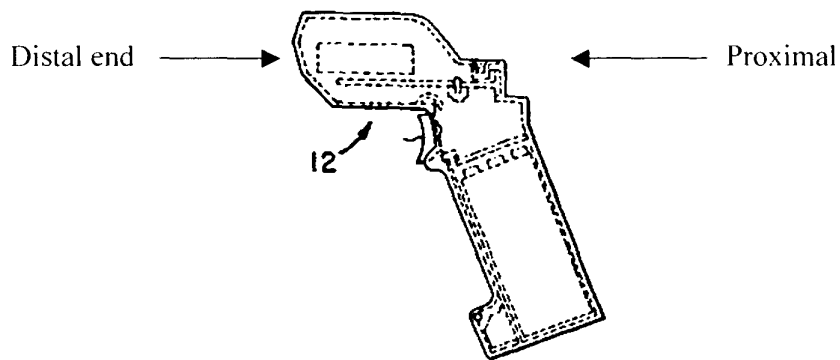


Fig. 1. Gun shaped scanner module of Petteruti, *et al.*

The master module discussed *supra* can interconnect with the scanner module above to form the portable scanner presented below. (See Fig. 2A). From the figure, it is apparent that even after connecting the master module to the scanner module, the scanner module handle is at most located about the center of the body of the device.

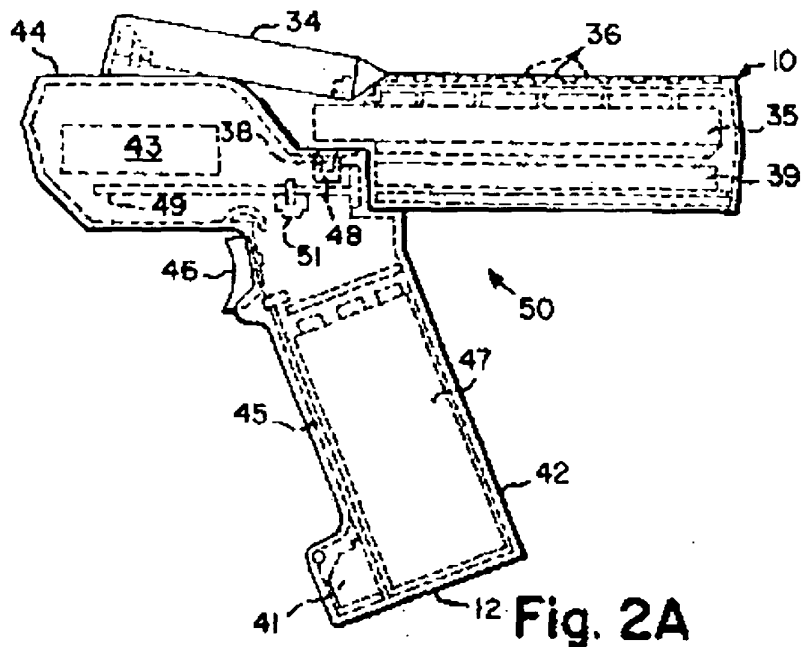


Fig. 2A. Scanner module with master module of Petteruti, *et al*

Tracy, *et al.* does not make up for the deficiencies of Petteruti, *et al.* with respect to the subject claimed invention. As described *supra*, Tracy, *et al.* teaches a portable shopping system wherein a portable display and portable scanner can be joined and employed concurrently. The scanner of Tracy, *et al.* can be detached; however a detached scanner does not include a handle connected at a distal end and/or a display as recited in the claimed invention.

Moreover, it is respectfully submitted that the Examiner has not addressed or overcome the limitations of Petteruti, *et al.* Claim 21 recites extending the handle from the bottom surface of the body *at* the first distal end to increase a viewing angle of the display. Petteruti, *et al.* teaches a scanner base unit that is slidable into a handle adapter. This configuration positions the handle in a **central location** under the base unit and is therefore configured **away** from the first distal end (See Fig. 2A above whereby the handle is not positioned at the first distal end). This configuration causes the display or viewing angle to be more difficult to observe from the user's hand than the arrangement of claim 21. Therefore, Petteruti, *et al.* does not teach or suggest the claimed configuration that provides the advantage of an increased viewing angle by configuring the handle at the first distal end as recited in claim 21.

In the Office Action dated December 14, 2001, the Examiner cited that it would be possible to increase the viewing angle in Petteruti, *et al.* by **moving the hand**. This again was stated in the Office action dated April 18, 2002 by the Examiner. Hand movements are mitigated by the present invention of claim 21 which is a **significant improvement** over Petteruti, *et al.* For example, an operator who operates a scanner may scan hundreds or thousands of items daily. If they have to move their hand each time they desire to view the display more clearly, such as would be required in a scanner according to Petteruti, *et al.* and **as suggested by the Examiner in hindsight**, increased inefficiency would result (*e.g.*, more time wasted in operation of device) and result in less utility (*e.g.*, overall be more cumbersome or difficult to operate device by constantly moving device closer to properly view display). In contrast, in a hand-held scanner according to claim 21, the handle extends from the bottom surface of the scanner *at* the first distal end, thereby increasing the viewing angle of the display - so as to mitigate hand movements. Therefore it is not obvious to increase the viewing angle in this manner or else Petteruti, *et al.* would have disclosed such feature.

In view of the above, it is readily apparent that there is no suggestion or motivation to combine Petteruti, *et al.* and Tracy, *et al.*, and that combining them would not result in the claimed invention. Accordingly, reversal of the rejection of claim 21 and the claims that depend therefrom

(dependent claims 22-34) is respectfully requested.

D. Rejection of Claims 18-19, 25-27, 30-31 Under 35 U.S.C. §103(a)

Claims 18-19, 25-27, 30-31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Petteruti, *et al.* as modified by Tracy, *et al.* and in further view of Reynolds, *et al.* (US 5,828,052). Petteruti, *et al.*, Tracy, *et al.* and Reynolds, *et al.*, individually and in combination, do not teach or suggest all claim limitations as recited in the subject claims. Reynolds, *et al.* does not make up for the aforementioned deficiencies of Petteruti, *et al.* and Tracy, *et al.* with respect to independent claims 14 and 21, which the subject claims depend from. In particular, Reynolds, *et al.* teaches a hand held scanner, however the scanner does not have a display with configurable orientations for left handed and right handed users as recited in claim 14 nor does Reynolds, *et al.* provide a handle located at a first distal end as recited in claim 21. Accordingly, it is respectfully submitted that this rejection be reversed.

IX. Conclusion

For at least the above reasons, the claims currently under consideration are believed to be patentable over the cited references. Accordingly, it is respectfully requested that the rejections of claims 14-34 be reversed.

Respectfully submitted,

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X. Appendix of Claims (37 C.F.R. § 1.192(c)(9))

14. A hand-held optical scanning device, comprising:
a body including an upper surface having a display mounted thereof;
a handle that extends from a bottom surface of the body, the display having a horizontal configuration; and
a microcomputer that provides a display option in accordance with the horizontal configuration to orient display information on the display based at least in part upon whether a user selects a left hand or right hand display option.
15. The hand-held optical scanning device of claim 14, the handle being integrally molded with the bottom of the body.
16. The hand-held optical scanning device of claim 14, comprising a wireless data transmission system for communicating data.
17. The hand-held optical scanning device of claim 16 being operative in a local area wireless network.
18. The hand-held optical scanning device of claim 14, the body including a lower housing member and an upper housing member that forms a cover, a resilient sealing member interposed between the lower housing member and cover to form a dust and moisture resistance seal therebetween.
19. The hand-held optical scanning device of claim 18, the cover including a digital display.
20. The hand-held optical scanning device of claim 14, the display is configurable to adapt to a user's preference, the users preference including at least one of the horizontal configuration and a vertical configuration.

-
21. A hand-held optical scanning device, comprising:
a body having an optical scanning module arranged to scan objects in a direction outward from a first distal end, the body including an upper surface having a display mounted thereof;
a handle that extends from a bottom surface of the body at the first distal end to increase a viewing angle of the display, the handle being joined to the body to cause a proximal end of a bottom surface of the body to rest on a radial surface of a user's hand.
22. The hand-held optical scanning device of claim 21, the handle including a trigger.
23. The hand-held optical scanning device of claim 22, the trigger being a two-finger trigger.
24. The hand-held optical scanning device of claim 22, the trigger facilitating at least one of the following functions: read only, read and store, and scroll menu utility.
25. The hand-held optical scanning device of claim 21, further comprising a resilient member between a lower body member and cover, the resilient member extending a distance beyond the lower body member and cover a substantial portion of a periphery of the body.
26. The hand-held optical scanning device of claim 25, the resilient member providing a bumping surface that protects the users hand.
27. The hand-held optical scanning device of claim 25, the resilient member providing a bumping surface that protects the device.
28. The hand-held optical scanning device of claim 21, the handle being integrally molded with the bottom of the body.
29. The hand-held optical scanning device of claim 21, comprising a wireless data transmission system for communicating data.

30. The hand-held optical scanning device of claim 21, the body including a lower housing member and an upper housing member that forms a cover, a resilient sealing member interposed between the lower housing member and cover to form a dust and moisture resistance seal therebetween.

31. The hand-held optical scanning device of claim 30, the cover including a digital display.

32. The hand-held optical scanning device of claim 21, further comprising a display that is configurable to adapt to a user's preference.

33. The hand-held optical scanning device of claim 32, the display being configurable vertically and horizontally.

34. The hand-held optical scanning device of claim 32, the display being configurable to provide portrait and landscape views.